

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Glenn H. McGall, Anthony D. Barone and Martin Diggelmann
Application No.: 10/619,799 Group Art Unit: 1764
Filed: July 14, 2003 Examiner: Not Yet Assigned
Confirmation No.: 7882



Title: REAGENTS AND METHODS FOR SOLID PHASE SYNTHESIS AND DISPLAY

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
10/14/03 Date	<i>Rachel Cohen</i> Signature
RACHEL COHEN Typed or printed name of person signing certificate	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

☐ under 37 CFR 1.129(a), or
(First/Second submission after Final Rejection)

☒ under 37 CFR 1.97(b), or
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

☐ under 37 CFR 1.97(c) together with either:
☐ a Statement under 37 CFR 1.97(e), as checked below, or
☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

☐ under 37 CFR 1.97(d) together with:
☐ a Statement under 37 CFR 1.97(e), as checked below, and
☐ a \$180.00 fee under 37 CFR 1.17(p), or
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

☐ under 37 CFR 1.97(i):
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
 - ☐ Copies of the cited references are enclosed.
 - ☒ The cited references are entered in prior application, U.S. Application No. 09/102,986, to which priority under 35 U.S.C. 120 is claimed. The earlier application contains copies of the cited references.
 - ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
 - ☐ The "concise explanation" requirement (non-English references) for reference(s) [] under 37 CFR 1.98(a)(3) is satisfied by:
 - ☐ the explanation provided on the attached sheet.
 - ☐ the explanation provided in the Specification.
 - ☐ submission of the enclosed International Search Report.
 - ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
 - ☐ the enclosed English language abstract.

☐ Applicant requests that the following non-published pending applications be considered:

Examiner's
Initials

U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []
 U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []
 U.S. Patent Application No. [], by [inventor(s)], filed [], Docket No.: []

 Examiner

 Date

- ☐ A copy of each above-cited application, including the current claims, is enclosed.
☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

- ☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.
☐ Please charge Deposit Account 08-0380 in the amount of \$[]. A copy of this Statement is enclosed.
☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.


Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Jesse A. Fecker
 Jesse A. Fecker
 Registration No.: 52,883
 Telephone: (978) 341-0036
 Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: 10-14-03

PTO-1,449 REPRODUCED		ATTORNEY DOCKET NO. 2719.2012-004	APPLICATION NO. 10/619,799	
 <p>August 18, 2003 (Use several sheets if necessary)</p>		APPLICANT Glenn H. McGall <i>et al.</i>		
		FILING DATE July 14, 2003	CONFIRMATION NO. 7882	GROUP 1764

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE	NAME
	AA	4,401,796	08/30/93	Itakura
	AB	4,458,066	07/03/84	Caruthers, <i>et al.</i>
	AC	4,500,707	02/19/85	Caruthers, <i>et al.</i>
	AD	4,728,502	03/01/88	Hamill
	AE	5,143,854	09/01/92	Pirrung, <i>et al.</i>
	AF	5,288,514	02/22/94	Ellman
	AG	5,391,785	02/21/95	Jones, <i>et al.</i>
	AH	5,556,752	09/17/96	Lockhart, <i>et al.</i>
	AI	5,571,937	11/05/96	Watanabe, <i>et al.</i>
	AJ	5,652,350	07/29/97	Watanabe, <i>et al.</i>
	AK	5,726,329	03/10/98	Jones, <i>et al.</i>
	AA2	5,786,512	07/28/98	Jones, <i>et al.</i>
	AB2	5,874,552	02/23/99	Jones, <i>et al.</i>


FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO	
	AL	WO 90/00626	25-JAN-1990	PCT		
	AM	WO 90/15070	13-DEC-1990	PCT		
	AN	WO 92/10092	25-JUN-1992	PCT		
	AO	EP 0 523 978	20-JAN-1993	EPO		
	AP	WO 93/04145	04-MAR-1993	PCT		
	AQ	WO 95/31434	23-NOV-1995	PCT		
	AL2	WO 99/10362	04-MAR-1999	PCT		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	Beaucage, <i>et al.</i> , <i>Tetrahedron Lett.</i> , 22:1859-1864 (1981).
	AS	Caruthers, <i>et al.</i> , <i>Genetic Engineering</i> , 4:1-17 (1982).

EXAMINER	DATE CONSIDERED
----------	-----------------

PTO-1449 REPRODUCED 	ATTORNEY DOCKET NO. 2719.2012-004	APPLICATION NO. 10/619,799	
	APPLICANT Glenn H. McGall <i>et al.</i>		
	FILING DATE July 14, 2003	CONFIRMATION NO. 7882	GROUP 1764

(Use several sheets if necessary)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AT	Fodor, <i>et al.</i> , <i>Science</i> , 251:767-777 (1991).
AU	Frank and Doring, <i>Tetrahedron</i> , 44:6031-6040 (1988).
AV	Froehler, <i>et al.</i> , <i>Tetrahedron Lett.</i> , 27:469-472 (1986).
AW	Froehler, <i>et al.</i> , <i>Nucleic Acids Res.</i> , 14:5399-5407 (1986).
AX	Geysen, <i>et al.</i> , <i>J. Immun. Meth.</i> , 102:259-274 (1987).
AY	Guzaev, A. <i>et al.</i> , "Synthesis of Oligonucleotide Analogues by Using Phosphoramidite Reagents Derived from 2,2-Bis(hydroxymethyl) Malonates," <i>Collection of Czechoslovak Chemical Communications</i> , 61:S226-S229 (1996).
AZ	Horn, Thomas <i>et al.</i> , "A Chemical 5'-Phosphorylation of Oligodeoxyribonucleotides That Can Be Monitored by Trityl Cation Release," <i>Pergamon Journals Ltd.</i> , 27(39):4705-4708.
AR2	Matteucci, <i>et al.</i> , <i>J. Am. Chem. Soc.</i> , 103:3185-3191 (1981).
AS2	Merrifield, J., <i>Am. Chem. Soc.</i> , 85:2149-2154 (1963).
AT2	Shchepinov, M.S., <i>et al.</i> , "A Versatile Reagent for the Synthesis of Modified Oligonucleotides," <i>Russian Journal of Bioorganic Chemistry</i> , 21(2):1-14 (1995).
AU2	Sinha, <i>et al.</i> , <i>Tetrahedron Lett.</i> , 24:5843-5846 (1986).
AV2	Sinha, <i>et al.</i> , <i>Nucleic Acids Res.</i> , 12:4539-4557 (1984).
AW2	Smith, Thomas H., <i>et al.</i> , "Oligonucleotide Labeling Method 3. Direct Labeling Reagents with a Novel, Non-Nucleosidic, Chirally Defined 2-Deoxy- β -D-Ribosyl Backbone," <i>Nucleosides & Nucleotides</i> , 15(10):1581-1594 (1996).
AX2	Winter, Martin, "Supports for Organic Solid Phase Synthesis," <i>In Combinatorial Peptide and Non-peptide Libraries</i> , ed. Jung, Gunther, VCH Publishers (Germany), pp. 465-510 (1996).
AY2	Sigma Chemical Company, catalog, page 1732 (1992).

EXAMINER	DATE CONSIDERED
----------	-----------------

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2719.2012-004APPLICATION NO.
10/619,799INFORMATION DISCLOSURE CITATION
IN AN APPLICATIONAPPLICANT
Glenn H. McGall *et al.*

August 18, 2003

FILING DATE
July 14, 2003CONFIRMATION NO.
7882GROUP
1764

(Use several sheets if necessary)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AZ2	Rapp Polymere catalog (website printout from http://www.rapp-polymere.com)
AR3	Ortigao, <i>et al.</i> , Introduction to Solid-phase Oligonucleotide Chemistry, http://www.interactiva.de/knowledge/nucleicchem/solidphase.html ,
AS3	Kumar, P., <i>et al.</i> , "A Versatile Solid Phase Method for the Synthesis of Oligonucleotide-3'-Phosphates," <i>Tetrahedron Lett.</i> , 32(7): 967-970 (1991).
AT3	Salo, H., <i>et al.</i> , "Disulfide Tethered Solid Supports for Oligonucleotide Synthesis: Preparation and a Comparative Study on the Resistance to Ammonolysis," <i>Collect. Czech. Chem. Commun.</i> , 61: S110-S111 (1996).
AU3	Salo, H., <i>et al.</i> , "Disulfide-Tethered Solid Supports for Synthesis of Photoluminescent Oligonucleotide Conjugates: Hydrolytic Stability and Labeling on the Support," <i>Bioconjugate Chem.</i> , 9: 365-371 (1998).
AV3	Zuckermann, R., <i>et al.</i> , "Efficient Methods for Attachment of Thiol Specific Probes to the 3'-ends of Synthetic Oligodeoxyribonucleotides," <i>Nucleic Acids Research</i> , 15(13): 5305-5321 (1987).
AW3	Ponsati, B. <i>et al.</i> , "Solid-Phase-Mediated Peptide Heterodisulfide Formation," <i>J. Am. Chem. Soc.</i> , 112(13):5345-5347 (1990).

EXAMINER

DATE CONSIDERED